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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,054	02/13/2004	Der-Jang Liaw	MR1035-1387	5624
4586	7590	06/09/2006	EXAMINER	
ROSENBERG, KLEIN & LEE			TESKIN, FRED M	
3458 ELLICOTT CENTER DRIVE-SUITE 101			ART UNIT	
ELLICOTT CITY, MD 21043			PAPER NUMBER	

1713

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/777,054	Applicant(s) LIAW ET AL.	
	Examiner Fred M. Teskin	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 6-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicants' election of the species (I) as shown by formula (I), and listing of claims 1-5 as readable thereon, in the reply filed on April 24, 2006, is acknowledged. Because applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 6-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 24, 2006.

Claims 2, 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the following grounds for indefiniteness apply to the indicated claims.

(A) The symbol "~" as used in claims 2 (line 6) and 5 (line 7) creates uncertainty as to the precise limits of the recited range. It is not clear, for example, whether the numerical values separated by "~" represent approximate or exact endpoints. If approximate, it is unclear what time periods shorter than 15 minutes or longer than 120 minutes are intended to be covered. Replacement of said symbol with a hyphen or the word -to- [cf., claim 5, step c)] would obviate this aspect of the rejection.

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(B) Also in claims 2 and 5, the expression "norbornene-type" creates indefinites, as it is unclear what "type" is intended to cover beyond literal compliance with formula (II). Clarification and appropriate correction are required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-5 are rejected under 35 U.S.C. 102(a) as being anticipated by Liaw et al (*Polymer Preprints* **2003**, 44(1), 945).

A diblock macroinitiator conforming to claim formula (I) and prepared from a monomer (II) and norbornene derivative (III) (NBMBR) as per claim 2 is described by Liaw et al. (see p. 945, Scheme II). The macroinitiator, synthesized *via* ring-opening metathesis polymerization (ROMP) in the presence of a Ru catalyst as specified in claim 3, was further reacted with methyl methacrylate - a monomer within claims 4 and 5 - under conditions as specified in claim 5; i.e., in the presence of Cu(I)Br and 2,2-bipyridine, at 100°C, and with addition of NBMBR 2 hours after commencing the ROMP reaction (*Id.*, second paragraph of Experimental section and Scheme IV and p. 946; Scheme V).

Because the cited publication (1) bears an authorship that differs from the present inventorship and (2) does not state it is describing the applicants' work, a *prima facie* case of anticipation is properly based thereon. See MPEP § 2132.01.

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The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Roh et al is pertinent to ring-opening metathesis copolymerization of carbazole-containing norbornene monomers (note Schemes 1-5).

No claims are allowable at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/06-06-06


FRED TESKIN
PRIMARY EXAMINER
1713